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Renard

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(54) **ANTIBACTERIAL FOOD COMPOSITION**

(75) Inventor: **Loïc Renard**, Rueil Malmaison (FR)

(73) Assignee: **NUTRIVERCELL**, Evry (FR)

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See application file for complete search history.

(56) **References Cited**

U.S. PATENT DOCUMENTS

2005/0158381 A1 7/2005 Aldritt et al.

FOREIGN PATENT DOCUMENTS

EP 1 902 721 3/2008
EP 1902721 A1 * 3/2008
EP 1 913 951 4/2008
WO WO 02/062362 8/2002

OTHER PUBLICATIONS

Famine Mary, URImel Nov. 26, 2008 [retrieved on Oct. 19, 2012]. Retrieved from the Internet <http://web.archive.org/web/20081126045946/http://www.famillemary.fr/boutique_us/fiche_produit.cfm?url=&type=179&ref=web_084601&code_lg=lg_us&pag=1&num=3&tri=0&marq=0>.*

Marcucci, Propolis: chemical composition, biological properties and therapeutic activity. *Apidologie*, vol. 26 (1995) pp. 83-99.*
Shankar et al., Zinc and immune function: the biological basis of altered resistance to infection. *American Journal of Clinical Nutrition*, vol. 68 Supp. (1998) pp. 447S-463S.*
Chandra et al., Trace element regulation of immunity and infection. *Nutrition Research*, vol. 2 (1982) pp. 721-733.*

Hudson, Treatment and prevention of bladder infections. *Alternative and Complementary Therapies*, (Dec. 2006) pp. 297-302.*
Iron (II) Sulfate. Wikipedia, 2013 [retrieved on Jul. 8, 2013]. Retrieved from the Internet: <URL: [https://en.wikipedia.org/wiki/Iron\(II\)_sulfate](https://en.wikipedia.org/wiki/Iron(II)_sulfate)>.*

Zinc oxide. Wikipedia, 2013 [retrieved on Jul. 8, 2013]. Retrieved from the Internet: <URL: https://en.wikipedia.org/wiki/Zinc_oxide>.*
Calcium Ascorbate. Wikipedia, 2013 [retrieved on Jul. 8, 2013]. Retrieved from the Internet: <URL: https://en.wikipedia.org/wiki/Calcium_ascorbate>.*

Pathogenic Bacteria. Wikipedia, 2013 [retrieved on Jul. 3, 2013]. Retrieved from the Internet: <URL: http://en.wikipedia.org/wiki/Pathogenic_bacteria>.*
Celik et al., Caffeic acid phenethyl ester suppresses oxidative stress in *Escherichia coli*-induced pyelonephritis in rats. *Molecular and Cellular Biochemistry*, vol. 297 (2007) pp. 131-138.*

Propolis PR-007. Datasheet [online]. Draper's Super Bee Apiaries, Inc., May 2009 [retrieved on Jan. 4, 2016]. Retrieved from the Internet <URL: <http://www.draperbee.com/catalog/page6.htm>>.*
International Search Report for PCT/FR2010/050627.

Max Shrem: "Famille Mary: Offering pharmaceuticals made from honey" *Slashfood* Jun. 18, 2008, pp. 1-8, XP002574073, Retrieved from the Internet: URL: <http://www.slashfood.com/2008/06/18/famille-mary-offering-pharmaceuticals-made-from-honey/>; [retrieved on Mar. 19, 2010], p. 3.

Bruyere et al: "Utilisation de la canneberge dans les infections urinaires recidivantes" *Medecine et Maladies Infectieuses, Societe Francaise D'Editions Medicales*, Paris, FR, vol. 36, No. 7, (Jul. 1, 2006), pp. 358-363.

Uzel A et al: "Chemical compositions and antimicrobial activities of four different Anatolian propolis samples" *Microbiological Research*, Fischer, Jena, DE, vol. 160, No. 2, (Apr. 25, 2005), pp. 189-195.

Popova M et al: "Antibacterial activity of Turkish propolis and its qualitative and quantitative chemical composition" *Phytomedicine*, Gustav Fischer Verlag, Stuttgart, vol. 12, No. 3, (Mar. 22, 2005) pp. 221-228.

Lavigne, et al., "Propolis can potentialise the anti-adhesion activity of proanthocyanidins on uropathogenic *Escherichia coli* in the prevention of recurrent urinary tract infections", 2011, pp. 1-7, vol. 4, No. 522, *BMC Research Notes*.

* cited by examiner

Primary Examiner — Kara Johnson

(74) *Attorney, Agent, or Firm* — B. Aaron Schulman, Esq.; Stites & Harbison, PLLC

(57) **ABSTRACT**

The present invention relates to an antibacterial food composition comprising a Propolis extract and a *Vaccinium macrocarpon* cranberry extract.

27 Claims, 2 Drawing Sheets